REMARKS

The Applicant does not believe that entry of foregoing amendment will result in the introduction of new matter into the present application for invention. Therefore, the Applicant, respectfully, requests that the above amendment be entered in and that the claims to the present application, kindly, be reconsidered.

The Final Office Action dated August 18, 2004 has been received and considered by the Applicants. Claims 1-15 are pending in the present application for invention. Claims 1-3, and 5-7 are rejected by the August 18, 2004 Final Office Action. Claim 4 is objected to and Claims 8-15 are allowed by the August 18, 2004 Final Office Action.

The Office Action rejects Claims 1, 3, and 6 under the provisions of 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,289,088 issued to Andoh (hereinafter referred to as Andoh. The Examiner states Andoh discloses the recited elements of the rejected claims. The Applicant respectfully disagrees. Rejected Claim 1 recites that the control unit admits an electric current to control the electric current in at least one of the windings when the winding is situated in a magnetic transition field between two adjacent magnets having opposite directions of magnetization. The Examiner's position is that the subject matter for the recited feature of the control unit admitting an electric current to control the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets is disclosed by Andoh on col. 6, lines 8-48. The Applicant, respectfully, points out that the subject matter of the control circuit emitting a current to a winding while the winding is situate in a magnetic transition field is not disclosed or suggested by Andoh on col. 6, lines 8-48. Moreover, the recited feature of the control unit admitting an electric current to control the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets is not disclosed, or suggested anywhere within the four corners of Andoh.

The Applicant would like to draw the Examiner's attention to the specification of the present application for invention on page 2, lines 10-24 wherein this feature of the control unit admitting an electric current to control the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets is

described to address the problem that exists within the prior art wherein no Lorentz forces are generated in the transition region between two magnets of opposite direction. Andoh does not address or even remotely mention the lack of Lorentz forces in the transition region between two magnets. "To anticipate a claim, a prior art reference must disclose every limitation of the claimed invention, either explicitly or inherently." In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). The Applicant, as previously discussed, points out that Andoh does not disclose very limitation of the claimed invention, either explicitly or inherently. Therefore, Andoh can not anticipate Claim 1. Accordingly, Claim 1 is believed to be allowable over the cited reference, Andoh.

Claim 3 additionally defines subject matter for the linear motor having a sensor for measuring a mutual position of the two parts of the linear motor in a direction parallel to the directions of magnetization, and in that the control unit comprises a control loop for adjusting a desired mutual position of the two parts by means of a signal supplied by the sensor, which signal corresponds to a measured mutual position of the two parts. The Final Office Action has failed to indicate where this subject matter is found within the cited reference Andoh. The Examiner has simply made a general statement that the subject matter defined by reject Claim 3 is found within Andoh. The Applicant, respectfully disagrees and requests that the Examiner indicate where within cites reference Andoh that the subject matter defined by rejected Claim 3 is disclosed or suggested.

Claim 6 defines subject matter for a scanning device wherein the electric coil system further comprises three coils and the sensor comprises three Hall sensors, which each measure the strength of a magnetic field originating from the magnets and present near, respectively, one of the three coils. The rejection contained within the Final Office Action simply makes a general statement that the subject matter defined by rejected Claim 6 is found within cited reference Andoh. The Applicant, respectfully, requests that the Examiner point out where the subject matter defined by rejected Claim 6 is taught or suggested by the cited reference, Andoh. The Applicant asserts that there is no teaching within Andoh for an electric coil system having three coils with the sensor being comprising three Hall sensors, which each measure the strength of a magnetic field originating from the magnets and present near, respectively, one of the three coils

as defined by rejected Claim 6.

Additionally, Claims 3 and 6 depend from Claim 1, either directly or indirectly and further narrow and define Claim 1, therefore Claims 3 and 6 are also believed to be allowable over the cited reference, Andoh. Therefore, this rejection is respectfully traversed.

The Office Action rejects Claims 1-3 under the provisions of 35 U.S.C. §102(b) as being anticipated by the anonymously disclosed Research Disclosure entitled "Three-phase Linear Motor" (hereinafter referred to as "Research Disclosure"). The Examiner states that the Research Disclosure discloses the recited elements of the rejected claims. The Applicant respectfully disagrees. As previously discussed, rejected Claim 1 recites the feature of the control unit admitting an electric current to control the electric current in at least one of the windings when the winding is situated in a magnetic transition field between two adjacent magnets having opposite directions of magnetization. The Research Disclosure makes no mention of the control unit admitting an electric current to control the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets having opposite directions of magnetization. The Applicant, respectfully, points out that the Research Disclosure is discussed by the specification of the present invention as an example of the prior art that is illustrative of the problems that are corrected by the subject matter defined by the rejected claims. The Examiner states that Research Disclosure discloses the subject matter for controlling the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets; however, the Examiner fails to indicate where within the cited reference, Research Disclosure, this subject matter is taught. The Applicant has reviewed the cited reference, Research Disclosure, and there is no teaching or suggestion of the subject matter for controlling the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets. The Applicant, respectfully, request that the Examiner indicate where within the Research Disclosure there exist any disclosure or suggestion of the stated problem and a teaching of a correction for the stated problem as defined by the subject matter recited by the rejected claims.

The subject matter defined by the rejected claims addresses that problem that exist within prior art references wherein no Lorentz forces are generated in the transition region between two magnets of opposite direction. The Research Disclosure makes no mention of the problem of no

Lorentz forces being generated with in the transition region between two magnets of opposite direction and the Research Disclosure provides no disclosure or suggestion for correction of this problem. It is in fact the Research Disclosure that is used within the specification of the present invention as the prior art example for which the stated problem of no Lorentz forces being generated in the transition region between two magnets of opposite direction. Rejected Claim 1 recites subject matter that corrects the discussed problems in the device taught by the by the Research Disclosure. Therefore, Claim 1 is believed to be allowable over the Research Disclosure.

Claim 2 defines subject matter wherein the scanning device further comprises the guide having a single round shaft and at least one bushing provided around said shaft. The Examiner states that sledge 3 is equivalent to a bushing. A busing is a well know feature within the art and sledge 3 within the Research Disclosure is, simply put, not equivalent to a bushing. Accordingly, this rejection is respectfully traversed.

Claim 3 additionally defines subject matter for the linear motor having a sensor for measuring a mutual position of the two parts of the linear motor in a direction parallel to the directions of magnetization, and in that the control unit comprises a control loop for adjusting a desired mutual position of the two parts by means of a signal supplied by the sensor, which signal corresponds to a measured mutual position of the two parts. The Final Office Action has failed to indicate where this subject matter is found within the cited reference Research Disclosure. The Examiner has simply made a general statement that the subject matter defined by reject Claim 3 is found within Research Disclosure. The Applicant, respectfully disagrees and requests that the Examiner indicate where within cites reference Research Disclosure that the subject matter defined by rejected Claim 3 is disclosed or suggested.

Additionally, Claims 2 and 3 depend from Claim 1, and further narrow and define Claim 1. Therefore Claims 2 and 3 are also believed to be allowable over the Research Disclosure. Accordingly, this rejection is respectfully traversed.

The Office Action rejects Claims 1, 3, and 7 under the provisions of 35 U.S.C. §102(b), as being anticipated by U.S. Patent No. 5,587,852 issued to Yoshiura et al. (hereinafter referred to as Yoshiura et al.). The Examiner states that Yoshiura et al. disclose the recited elements of the rejected claims. The Applicant respectfully disagrees. Rejected Claim 1 recites that the

control unit admits an electric current to control the electric current in at least one of the windings when the winding is situated in a magnetic transition field between two adjacent magnets having opposite directions of magnetization. The Examiner states that Yoshiura et al. disclose the subject matter for controlling the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets; however, the Examiner fails to indicate where within the cited reference, Yoshiura et al., that this subject matter is taught. The Applicant has reviewed the cited reference, Yoshiura et al., and there is no teaching or suggestion of the subject matter for controlling the electric current in a winding when the winding is situated in a magnetic transition field between two adjacent magnets.

The Applicant, respectfully, points out that the present invention addresses a problem that exits within prior art references such as Yoshiura et al. This problem that exists within the prior art, as previously discussed, is that no Lorentz forces are generated in the transition region between two magnets of opposite direction. Yoshiura et al. make no mention of this prior art problem and do not disclose or suggest any solution for the lack of Lorentz forces in the transition region between two magnets of opposite direction. Therefore Claim 1 is believed to be allowable.

Claim 3 additionally defines subject matter for the linear motor having a sensor for measuring a mutual position of the two parts of the linear motor in a direction parallel to the directions of magnetization, and in that the control unit comprises a control loop for adjusting a desired mutual position of the two parts by means of a signal supplied by the sensor, which signal corresponds to a measured mutual position of the two parts. The Final Office Action has failed to indicate where this subject matter is found within the cited reference Yoshiura et al.. The Examiner has simply made a general statement that the subject matter defined by reject Claim 3 is found within Yoshiura et al.. The Applicant, respectfully disagrees and requests that the Examiner indicate where within cites reference Yoshiura et al. that the subject matter defined by rejected Claim 3 is disclosed or suggested.

Claim 7 defines subject matter for the scanning device further comprising the first part of the linear motor is provided with two rows of permanent magnets extending substantially parallel to the guide, the pitch between said permanent magnets being substantially constant, each pair of adjoining magnets of each row having opposite directions of magnetization, the two rows being

arranged, viewed in a direction parallel to the directions of magnetization, at some distance from each other, and each pair of oppositely arranged magnets of the two rows having equal directions of magnetization, and said winding portions of the coil system, viewed in a direction parallel to the magnetization direction, being situated between the two rows so as to be closer to one row than to the other row. The Examiner has simply made a general statement that the features of rejected Claim 7 are found within Yoshiura et al. The Applicant asserts that the features of Claims 7 are not found within Yoshiura et al.

Additionally, Claims 3 and 7 depend from Claim 1, either directly or indirectly, and further narrow and define Claim 1. Therefore Claims 3 and 7 are also believed to be allowable. Therefore, this rejection is respectfully traversed.

The Office Action rejects Claim 5 under the provisions of 35 U.S.C. §103(a) as being unpatentable over the Research Disclosure. The Examiner states Official Notice is taken of the use of coils having 2/3 or 3/4 overlapping pitch profiles. The Applicant respectfully asserts that that it is not notoriously well known to use coils having 2/3 or 3/4 overlapping pitch profiles as defined by rejected Claim 5. The Applicants respectfully request that the Examiner produce prior art references that would suggest to a person skilled in the art, the use of coils having 2/3 or 3/4 overlapping pitch profiles in a manner as defined by rejected claim 5 to the present invention. Additionally, Claim 5 is believed to be allowable for the reasons previously stated, e.g. due to its dependency from Claim 1.

Applicant is not aware of any additional patents, publications, or other information not previously submitted to the Patent and Trademark Office which would be required under 37 C.F.R. 1.99.

In view of the foregoing amendment and remarks, the Applicant believes that the present application is in condition for allowance, with such allowance being, respectfully, requested.

Respectfully submitted,

By _____

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